REMARKS

This Response responds to the Office Action dated November 17, 2005 in which the Examiner rejected claims 1-28 under 35 U.S.C. §103.

Claims 1, 3-6, 8-12, 14-17 and 19-28 were rejected under 35 U.S.C. §103 as being unpatentable over *Inoue* (U.S. Patent No. 6,097,836) in view of *Fukushima et al* (U.S. Patent No. 5,940,530).

Applicant respectfully traverses the Examiner's rejection of the claims under 35 U.S.C. §103. The claims have been reviewed in light of the Office Action, and for reasons which will be set forth below, applicant respectfully requests the Examiner withdraws the rejection to the claims and allows the claims to issue.

Inoue appears to disclose an image processing system and its smoothing method characterized by the means employed for correcting an input image recorded in a color fog state and in a backlight state. (Col. 1, lines 11-14). With reference to FIG. 3 showing a flow of the processing in correction of color fog of an image, the operator first confirms an input image by a monitor or the like, and selects one pattern to be executed from the correction patterns prepared beforehand (Step 301). (Col. 8, lines 62-67). With reference to FIG. 1, the image processing system of the embodiment includes an input image buffer 10 for holding input image data, a correction pattern storing unit 20 for storing correction patterns for correcting color fog in an input image, a correction pattern specifying unit 30 for an operator to specify the correction pattern, a correction amount storing unit 40 for storing the correction amount of color fog, a correction amount specifying unit 50 for an operator to specify the correction amount, a tone curve generating unit 60 for generating the tone curve data of RGB on the basis of the data stored in the correction pattern

storing unit 20 and the correction amount stored in the correction amount storing unit 40, an LUT storage buffer 70 for storing the generated tone curve data, an LUT converting unit 80 for performing a table conversion on the image data, and an output image buffer 90 for holding output data. (Col. 9, line 65 through col. 10, line 13). FIG. 6 shows a constitutional example for realizing the correction pattern specifying unit 30 and the correction amount specifying unit 50. The correction pattern specifying means 601 displayed on the CRT monitor 604 shows the items such as green fog in a fluorescent light, yellow fog in an electric light, red fog in a snow scene, and blue fog in a light from a window facing north. The operator specifies a desired correction pattern by operating a mouse 603. The correction amount specifying means 602 also displayed on the CRT monitor 604 shows a slider bar for specifying the extent of correction. The operator specifies a desired correction amount by operating the mouse 603. (Col. 10, lines 46-57). Color fog correction by the image processing system adopts such an intuitive specifying method that proper smoothing can be made by only specifying a correction pattern and a correction amount, not requiring many adjustment parameters. (Col. 13, lines 30-34).

Thus, *Inoue* merely discloses an operator specifies a correction pattern and a correction amount (column 10, lines 2-6, 56-57). Nothing in *Inoue* shows, teaches or suggests a) analyzing image data to determine a scene and correcting the image data with a first type of correction parameter that corresponds to the scene as claimed in claims 1, 10 and 12 or b) analyzing image data to determine a scene and automatically correcting the image data in response to the scene determination as claimed in claims 5, 11 and 16. Rather, *Inoue* teaches away from the claimed

invention and discloses an operator specifying a correction pattern and a correction amount.

Additionally, *Inoue* discloses in Figure 6 a monitor showing a plurality of desired correction patterns 601, one of which is selected by an operator using a mouse (column 10, lines 46-57). Nothing in *Inoue* shows, teaches or suggests displaying both a scene of the image data and a first type of correction parameter that corresponds to the determined scene as claimed in claims 1, 10 and 12. Rather, Figure 6 of *Inoue* merely discloses displaying the correction pattern selection 601 and a slider bar 602 for specifying the extent of correction.

Also, since *Inoue* does not analyze an image and correct the image with a first type of correction pattern, nothing in *Inoue* shows, teaches or suggests correcting an image with an alternate type of correction pattern when a user sets the correction parameter as claimed in claims 1, 10 and 12. Rather, *Inoue* teaches away from the claimed invention and only allows the user to set the correction pattern and thus does not correct with a user selection rather than an automatic selection.

Finally, *Inoue* as discussed above does not analyze image data to determine a scene or decides a first type of image correction based on the determined scene as claimed in claim 21. Rather, *Inoue* only discloses a user determining the correction pattern and amount thereof. Furthermore, since only the user has input in *Inoue*, nothing in *Inoue* shows, teaches or suggests a setter which receives a user's instruction to select a first type of image correction process or another type of image correction process different from the first type of image correction process (decided by the decider) as claimed in claim 21. Rather, in *Inoue*, only the user selects the correction pattern and desired correction amount.

Fukushima appears to disclose the gradation correction apparatus of a video apparatus, such as a video printer, for producing hard copy output of video signals. (Col. 1, lines 11-13). The operation of the gradation correction method described above is described below with reference to FIG. 11-FIG. 15. FIG. 12, FIG. 13, and FIG. 15 are flow charts of the processes executed by a microcomputer. First, in step 10, it is determined to what scene the input image is associated, and the scene information is input. Whether the input image is associated with a people picture, a backlit picture, or other image is determined by a person, and is input as scene information. (Col. 9, line 64 through col. 10, line 5). The operation for determining the degree of brightness information and the scene information of the image is described in detail first. In FIG. 1, 101 is the input image, and is an image input from a video printer, etc.; 102 is the block information acquisition means 102 for dividing the input image into blocks, determining the representative value of each block, and outputting that representative value as the block information; 103 is the backlighting evaluation means 103 receiving the block information and calculating the backlighting presence evaluation 108 and degree of backlighting 110 by means of backlighting presence evaluation means 103a and degree of backlighting information determination means 103b; 104 is the people evaluation means 104 for calculating the people presence evaluation 109 and people degree 111 by means of people presence evaluation means 104a and people degree information determination means 104b; 105 is a category classifying means for combining the backlighting presence evaluation 108 and people presence evaluation 109 information, and classifying the input image as one of four categories, i.e., first, "a backlit people picture scene," second, "a backlit, non-people picture scene," third, "a non-backlit,

people picture scene," and fourth, "a non-backlit, non-people picture scene"; 106 is a scene information determination means for determining from the selected category information the degree of reliability information 112 of the three features of the image scene, i.e., "backlit scene," "people picture scene," and "other," required when synthesizing the correction curve for gradation correction; and 107 is the gradation correction means for generating the gradation correction curve based on the degree of reliability information 112, degree of backlighting 110, and the people degree 111. (Col. 12, line 63 through col. 13, line 27). The present embodiment assumes that "the difference between a backlit picture and a normal lighting picture is in the distribution pattern of the shadows in the image." In a normal lighting picture, shadow blocks are present randomly in the image rather than concentrated in a single area when the image is expressed as a block average image because lighting is projected from the front of the subject. In a backlit picture, lighting is projected from above or behind the subject, and the shadow blocks are present as a block at the bottom of the picture, or are present from the top to the bottom of the picture. Backlighting is therefore evaluated using two parameters, luminance and the grouping pattern (luminance and shape), of the shadow blocks. When there are two people in a backlit situation, the center of the image may be bright, and this method therefore does not assume that the shadows are in the image center. Following this guideline, the blocks that are shadows (dark) are evaluated by applying a luminance threshold value process using primarily the average luminance of the block information. Then backlighting is evaluated considering all of three conditions: the average luminance of dark areas, the bright area:dark area luminance ratio, and the shape of dark areas. (Col. 14, lines 4-27).

Thus, *Fukushima et al* discloses a category classifying means 105 which classifies an input image into one of four types of categories and a gradation correction means 107 for generating gradation correction curves. Nothing in *Fukushima* shows, teaches or suggests correcting image data with a first type of correction parameter that corresponds to a scene as claimed in claims 1, 5, 10, 11, 12 and 16. Rather, *Fukushima et al* merely discloses generating correction curves based upon an input image classification.

Furthermore, *Fukushima et al* does not show, teach or suggest a user input of an alternative type of correction parameter as claimed in claims 1, 10, 12 and 21. Therefore, nothing in *Fukushima et al* shows, teaches or suggests a user entering an alternative type of correction parameter and correcting with the alternative type of correction parameter when the user sets the alternative type as claimed in claims 1, 10, 12 and 21. Rather, *Fukushima et al* teaches away from the claimed invention since no user input correction parameter is provided.

Finally, nothing in *Fukushima et al* shows, teaches or suggests a display device which displays both the scene of the image data and a first type of correction parameter that corresponds to the determined scene as claimed in claims 1, 10 and 12.

A combination of *Inoue* and *Fukushima et al* would not be possible. In particular, nothing in *Fukushima et al* shows, teaches or suggests any user interaction. Therefore, it is unclear why the references would be combined. In fact, *Fukushima et al* would suggest to eliminate any user interface as taught by *Inoue*. Finally, applicant respectfully traverses the Examiner's statement that the claim does not recite displaying correction parameters that result from an analysis of image

data. Claim 1 clearly claims the controller "corrects the image data with a first type of correction parameter that corresponds to the scene" and a display device which "displays the scene...and the first type of correction parameter that corresponds to the determined scene" (see also claims 10 and 12).

For all the above stated reasons, applicant respectfully requests the Examiner withdraws the rejection to claims 1, 5, 10-12, 16 and 21 under 35 U.S.C. §103.

Claims 3-4, 6, 8-9, 14-15, 17, 19-20 and 22-28 depend from claims 1, 5, 10-12, 16 and 21 and recite additional features. Applicant respectfully submits that the claims would not have been obvious within the meaning of 35 U.S.C. §103 over *Inoue* and *Fukushima et al* at least for the reasons as set forth above. Therefore, applicant respectfully requests the Examiner withdraws the rejection to claims 3-4, 6, 8-9, 14-15, 17, 19-20 and 22-28 under 35 U.S.C. §103.

Claims 2, 7, 13 and 18 were rejected under 35 U.S.C. §103 as being unpatentable over *Inoue* and *Fukushima et al* and further in view of *Bar et al* (U.S. Patent No. 5,506,946).

Applicant respectfully traverses the Examiner's rejection of the claims under 35 U.S.C. §103. The claims have been reviewed in light of the Office Action, and for reasons which will be set forth below, applicant respectfully requests the Examiner withdraws the rejection to the claims and allows the claims to issue.

As discussed above, since nothing in the combination of *Inoue* and *Fukushima et al* shows, teaches or suggests the primary features as claimed in claims 1, 5, 12 and 16, applicant respectfully submits that the combination of the primary references with the secondary reference to *Bar et al* would not overcome the

deficiencies of the primary references. Therefore, applicant respectfully requests the Examiner withdraws the rejection to claims 2, 7, 13 and 18 under 35 U.S.C. §103.

The prior art of record, which is not relied upon, is acknowledged. The reference taken singularly or in combination does not anticipate or make obvious the claimed invention.

Thus it now appears that the application is in condition for reconsideration and allowance. Reconsideration and allowance at an early date are respectfully requested.

If for any reason the Examiner feels that the application is not now in condition for allowance, the Examiner is respectfully requested to contact, by telephone, the applicant's undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this case.

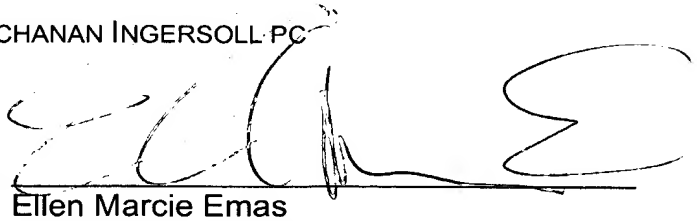
In the event that this paper is not timely filed within the currently set shortened statutory period, applicant respectfully petitions for an appropriate extension of time. The fees for such extension of time may be charged to our Deposit Account No. 02-4800.

In the event that any additional fees are due with this paper, please charge our Deposit Account No. 02-4800.

Respectfully submitted,

BUCHANAN INGERSOLL PC

Date: April 4, 2006

By: 

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